



Evaluation of the impact generated by internal marketing in the provision of student services of the Higher Education Institutions of Mexico

Lizeth Abigail Figueroa Corral¹, Flaviano Maldonado Sandoval², Omar Cesar Lomelí³, Gerardo Vigil Rendón⁴, José Guadalupe Pedro Méndez⁵, Silvia Estela Vargas Ríos⁶, Juan Gabriel López Hernández⁶, Leonardo Ávila Vargas⁶

¹Facultad de Turismo y Mercadotecnia, Universidad Autónoma de Baja California, Tijuana, Baja California, México.

²Departamento de Metalmeccánica-Industrial, Tecnológico Nacional de México, Instituto Tecnológico de Mexicali, Mexicali, Baja California, México.

³Departamento de Ingeniería Industrial, Instituto Tecnológico de Tijuana; Instituto Internacional para el Desarrollo Empresarial-INIDE, Tijuana, Baja California, México.

⁴Departamento de Ingeniería Industrial, Instituto Internacional para el Desarrollo Empresarial-INIDE, Tijuana, Baja California, México.

⁵Departamento de Ciencias, Facultad de Ingeniería y Negocios, Universidad Autónoma de Baja California, San Quintín, Baja California, México.

⁶Departamento de Ciencias Básicas, Centro de Bachillerato Tecnológico Agropecuario # 146, San Quintín, Baja California, México.

Abstract – An investigation was conducted to evaluate the internal marketing in a higher educational institution (HEI) located in the northwest of the Mexican Republic, which was based on information of eleven HEI that are the most important of Mexico. In this scientific study, was made evaluations and surveys to 100 students in outdoors of an educational institution located in Tijuana city, Baja California, Mexico, observing that the action of internal marketing from the HEI evaluated, generated a Increase in the productive yielding of workers of Scholar Services Department, and increasing the satisfaction indices of students of the educational institution mentioned above. This investigation was developed to corroborate the information obtained from the eleven HEI mentioned above. These higher education institutions, which are the most important of Mexico, are located in several regions of our country, and

are considered the most prestigious universities in Mexico. For this reason, this scientific study was conducted to determine the level of quality of student services provided to students of this faculty where the scientific study was made, and the effect generated by internal marketing that improved the quality of services provided to the IES students evaluated in the 2021. This investigation concluded that the internal marketing is of great importance in the provision of student services by human capital, because students can be considered as clients and educational institutions, being evaluated to improve their service activities.

Keywords: Internal marketing, higher level educational institutions, quality of school services.

1. INTRODUCTION

The quality of school services in higher education institutions is very relevant to students' care. This research is based on a descriptive evaluation, where an analysis of the impact generated by internal marketing (Fontalvo et al) to services granted to higher level students. The nine factors evaluated are mentioned immediately: a) Issuance of certified records of school documents. b) Expedition and registration of school documents. c) Verification, monitoring and review of school documents. d) Admissions (students' income and discharge). e) High and low students. f) Credentialization process. g) Expedition of professional titles and certificates. h) Generation, validation and monitoring of scholarships for students. i) Digitization, return and legalization of school documents. Higher education institutions in Mexico They are located in all states of the Mexican Republic, to promote the professional development of Mexican citizens of any age, socioeconomic level and culture, essentially. In our country six type of HEI are mainly included, represented in figure 2 and generating a brief explanation (SEP, 2022).

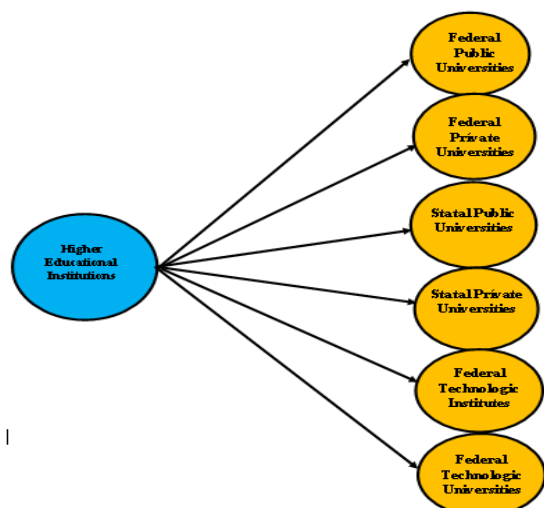


Fig -1: Main types of HEI in Mexico

The HEI mentioned are regulated by the Secretaria de Educacion in Mexico (SEP), constituted by the

main types of the HEI, which are explained next (SEP, 2022; Figueroa 2020):

a) Public National Universities. They are the main universities supported by the federal government in our country, dedicated to any educational career, being the largest number of students nationwide and accessible to anyone. In the state of Baja California, located in the northwest of the Mexican Republic there is only one representation of the National Autonomous University of Mexico (UNAM), being the Centro de Nanociencias and Nanotecnologia-UNAM, located in the city of Ensenada of this state. In these universities, is required of five years and principally postgrad studies of two years to end professional studies and being semiannual periods.

b) Public State Universities. They are the competence of public universities, receiving financing from state governments and dedicated only to specific activities of each region of the country and having some educational careers similar to the federal educational institutions and have educational careers of each region, depending of the economic activities of each region of our country. In the Baja California State, the principal economical activities are industrial and commercial actions. Its cost is accessible to many people. The Universidad Autonoma de Baja California is located in the cities of Ensenada, Mexicali, Tecate and Tijuana. In these universities, and required of five years to finish professional studies, and being semiannual periods.

c) Private National Universities. They are of importance because they generate competence to the two types mentioned above, dedicated to certain specific educational careers (especially as Administration, Engineering, Laws, Marketing, Nutrition and Health educational careers). But, as the cost in these HEI is elevated, being a bit accessible to many people. The Universidad del Valle de Mexico (UVM) located in the Mexicali city, is one of this type of HEI, being a part of this type of universities in the state of Baja California. Other



university as a federal HEI, is the Universidad de Estudios Avanzados (UNEA), coming from the center of our country, and located in the cities of Mexicali and Tijuana of the Baja California State. In these universities is necessary study by four years, which are in four -monthly periods in both universities of this type of HEI.

d) Private State Universities. It is part of higher education institutions of the State of Baja California, dedicated to specific educational areas, especially to education, engineering (especially the industrial sector), laws, psychology and nutrition as educational careers. The labor fields are focused on the industries of this region. The cost is high as the private universities of National, being little accessible to people. The Centro de Estudios Técnico y Superior (CETYS), is one of this type of HEI and is located in the cities of Ensenada, Mexicali and Tijuana. Also, in this state is the Xochicalco University located in the cities of Ensenada, Mexicali and Tijuana, and are dedicated to educational careers as administration, education, engineering especially for the industrial area, nutrition, psychology and health. The CETYS contemplates semiannual periods, requiring five years to finish the educational careers, and instead the Universidad Xochicalco, requiring four years to finish the educational careers in fourthly periods, requires of four years by four -monthly periods.

e) Federal Technological Institutes. They are higher level educational institutions dedicated mainly to the Administrative and Engineering careers of different areas, in according to the productive sector of each region of our country, and constituted to train professionals such as the previous HEI with specific activities of each region of our country. This educational institution is located in the cities of Ensenada, Mexicali and Tijuana in the Baja California State. In these HEI, are required of five years to finish professional studies, being semiannual periods.

f) Federal Technological Universities. They are higher level educational institutions, which offer professional careers by four -month periods, which

require four years to finish their studies, being located in the cities of Ensenada, Mexicali and Tijuana of the State of Baja California. This HEI is focusing mainly to the careers of administration and some engineering careers, especially in logistic engineering as a principal educational career.

There are other institutions of higher education in the region of our country important cities of the State of Baja California, only that in this research they are not contemplated as they are lower rank at the level of importance with respect to the competitiveness of HEI.

2. QUALITY OF SCHOOL SERVICES IN HEI

This activity was made with the focus for service of students of any type of career and of a HEI. As in any type of service, in the educational area, activities offered in the Department of School Services were contemplated, where the services described above in the introductory section are carried out (Figuroa, 2020). For about 20 years, the education sector has implemented the ISO9000 system as a service quality action (López et al., 2016; Vera et al., 2018), in its activities as a customer service process, and in the in the last five years, due to the competitiveness of educational institutions. With this, the service in the HEI has been strengthened, to improve the diversity of processes, applying continuous improvement, which is highly focused on the engineering area in industrial companies, mainly (González et al., 2012; Phabmixay et al., 2018). In the customer service process where the competitive level and customer treatment are related, four aspects are considered, which are shown in figure 2, where the relationship between the levels of competitiveness and customer treatment is observed, being factors relevant in the generation of customer service of any activity and service company (Duque et al., 2012). The relationship includes:

Level 1 (red color). Indicates an ineffective and unpleasant situation, such as the worst level, by representing, for example, that both the facilities of a

place of service are dirty and inadequate, and the customer service is not efficient.

Level 2 (orange color). Indicates an effective and unpleasant situation, improving the level a bit, by representing, for example, that the facilities of a place of service are clean, being efficient, but the customer service is inefficient, the facilities being effective and the customer treatment unpleasant.

Level 3 (yellow color). It indicates an ineffective and pleasant situation, improving the level, by representing, for example, that the facilities of a place of service are dirty and inadequate and customer service is efficient.

Level 4 (green color). Indicates an effective and pleasant situation, such as the best level, by representing, for example, that the facilities of a place of service are clean and customer service is efficient.

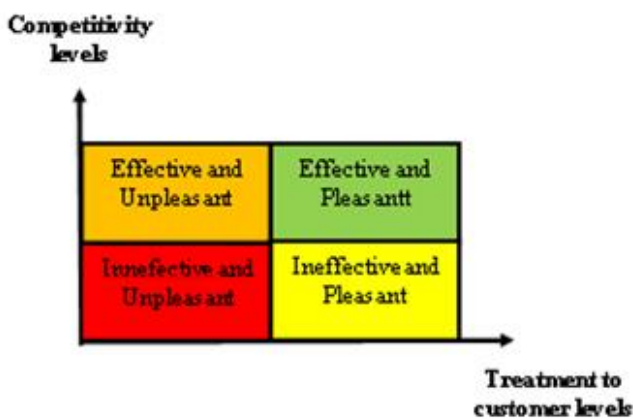


Fig -2: List of levels of competitiveness and customer service Internal marketing in student services

One of the important aspects of internal marketing with respect to customer service is to apply the appropriate strategies used by executive or managerial staff (Sotelo et al., 2017), as well as heads of departments of HEI, with employees or public servants, to help achieve effective conviction.

With it, that employees carry out their duties efficiently (Al-Borie, 2012). This is to generate a customer service process in an optimal way, and thus be constantly increasing the levels of customer satisfaction, with respect to the facilities and dignified treatment of the customer (Araque et al., 2017). A very important factor to develop internal marketing strategies is communication, requiring that it be as clear, concise, and enjoyable as possible on the part of directors, managers, and heads of departments of higher education institutions with their employees (Grande, 2014; Prado et al, 2018)). Once the work of convincing the employees of any type of activity was carried out, a customer satisfaction matrix was prepared in this investigation, which is shown in figure 3.

Principal factors	A	B	C
Secondary factors			
1	A1	B1	C1
2	A2	B2	C2
3	A3	B3	C3
4	A4	B4	C4

Fig -3: Analysis of the factors of satisfaction level

2.1 Relationship of Parameters

- A1 Dignified treatment and dirty facilities
- A2 Dignified treatment and clean facilities
- A3 Dignified treatment and dirty facilities
- A4 Dignified treatment and clean facilities
- B1 Dignified treatment and inadequate service
- B2 Dignified treatment and adequate service
- B3 Dignified treatment and inadequate service
- B4 Dignified treatment and adequate service
- C1 Inadequate service and dirty facilities
- C2 Inadequate service and clean facilities
- C3 Adequate service and dirty facilities
- C4 Adequate service and clean facilities

The previous matrix shows the relationship between the levels of customer treatment, the state of the facilities and the quality of the service, observing the different types of colors by level, with dark red being the most relevant, being the worst index in the process of customer satisfaction, (A1) continuing with the colors of this same color more subdued (B1) and C1), indicating an improvement as the customer satisfaction matrix is followed up. the same occurs with the color orange, yellow and ending with the color green, where the faintest colors are illustrated as the matrix is evaluated to the right side, indicating the highest customer service satisfaction (García, 2008).

3. METHODOLOGY

in this investigation, two relevant variables were used (1) internal marketing as an independent variable to promote the quality of school services and (2) and the effect as an independent variable, which it generated in the way in which school service workers prepared their activities to provide services to the students of the faculty where this scientific study was made. a pilot test was carried out with 100 surveys as a pilot test, with a questionnaire used as an evaluation instrument to obtain information, being applied on an internet platform, due to the period of confinement due to the occurrence of the covid19 pandemic. to obtain the results optimally, it was necessary to send the survey four times to the 100 students considered as the sample of the pilot test.

4. RESULTS

An analysis of the relationship of internal marketing process and customer service level generated to students in the aforementioned educational institution was made. Evaluations were made and showed with the relevance of this scientific study, where the age groups that participated in the 100 surveys were observed as the first analysis factor.

table 1 represents the participating age groups, where 50% were male (50) and 50% female (50).

Table -1: Age range of the subjects surveyed

Quality Factors	Type of Procedure	Satisfaction Level
Age		
18 to 24 years (34)	D, G, H	A3 (50%), B2 (50%)
25 to 35 years (32)	A, C, E	C2 (75%), B1 (25%)
35 to 44 years (22)	B, G, I	A1 (25%), B3 (75%)
45 to 54 years (14)	A, F, G	B4 (34%), C2 (66%)
Quality Factors	Improvement Proposed	
Age		
18 to 24 years (34)	12 (75%), 11 (25%)	
25 to 35 years (32)	16 (50%), 13 (50%)	
35 to 44 years (22)	11 (75%), 14 (25%)	
45 to 54 years (14)	10 (66%), 13 (34%)	

4.1 Type of Procedure

- A. Issuance of certified records of school documents
- B. Issuance and registration of school documents.
- C. Verification, monitoring and review of school documents.
- D. Admissions (entry and exit of students).
- E. Registration and withdrawal of students.
- F. Credentialing process.
- G. Issuance of titles and professional certificates.
- H. Generation, validation and monitoring of scholarships for students.
- I. Digitization, return and legalization of school documents.

4.2 Satisfaction Level



- A1 Dignified treatment and dirty facilities.
- A2 Dignified treatment and clean facilities
- A3 Dignified treatment and dirty facilities.
- A4 Dignified treatment and clean facilities
- B1 Dignified treatment and inadequate service.
- B2 Dignified treatment and adequate service.
- B3 Dignified treatment and inadequate service.
- B4 Dignified treatment and adequate service
- C1 Inadequate service and dirty facilities.
- C2 Inadequate service and clean facilities.
- C3 Adequate service and dirty facilities.
- C4 Adequate service and clean facilities

4.3 Proposed Improvement

1. Change of boss of the Scholar Department.
2. Change of personnel that generates the service.
3. Updating of computer equipment and software.
4. Modernization of facilities.
5. Constant training of internal marketing and customer service to the boss and staff that generates the service.

Table 1 illustrates the way in which the customer service satisfaction level analysis was prepared, where it can be seen that, in the procedures section, the most relevant was the issuance of titles and professional certificates, followed by the issuance of certified proofs of school documents. On the other hand, it is indicated that the main actions of level of satisfaction in customer service, being the most relevant, dignified treatment and inadequate service. And, finally, the most relevant improvements were evaluated, being the change of head of personnel the one that occurred most frequently, for generating mistreatment of students.

5. EVALUATION OF INTERNAL MARKETING IN SCHOOL SERVICES AND STUDENT OPINION

This section of the investigation contemplates two evaluations, presented below, based on the matrix designed and applied for this scientific study:

1. Evaluation of internal marketing. This is part of the goals achieved by the head of the Department of School Services, to achieve the conviction to offer a quality service to the student community of any HEI of the Tijuana city. Figure 4 shows the levels of awareness of the staff of the School Services Department, after the head of this department applied internal marketing strategies, improving the quality of service. An evaluation instrument (questionnaire) was developed with ten questions to ten employees (of different types of service, both those with great experience and those with little experience) of the student service department, expressing in figure 4, the four most relevant, with the percentages of each result and in brackets the number of people surveyed. It is observed that in question 1, a response was obtained with a greater frequency of "Always", in addition to question 2 that indicates a response with a higher incidence appearing as "Sometimes". In question 3, the most common is represented with a "Sometimes" response, while in question 4, the highest response is illustrated with "Sometimes". This indicates that, at a general level, the staff feels that they are carrying out their duties adequately and are providing a quality service. In the other phase of this stage, the student opinion is presented, generating the relationship of the matrix of figure 4, observing with general aspects that the quality of the service should be improved.

Questions	A	B	C	D
Answers				
1	36% (24)	22% (32)	22% (28)	20% (25)
2	21% (20)	40% (24)	27% (30)	12% (25)
3	28% (33)	44% (18)	17% (22)	11% (24)

Fig -4: Matrix of results of the customer service satisfaction evaluation

- A. Question 41. Do the school services staff adequately guide students in school procedures?
 A1. Always; A2. Sometimes; A3. Rarely; A4. Never
- B. Question 7. Are the school service personnel aware of the procedures that students require?
 B1. Always; B2. Sometimes; B3. Rarely; B4. Never
- C. Question 35. Does the school services staff prepare the student registration and withdrawal service efficiently?
 C1. Always; C2. Sometimes; C3. Rarely; C4. Never
- D. Question 16. Can it be considered that the School Services Department offers an efficient quality service?
 D1. Always; D2. Sometimes; D3. Rarely; D4. Never

6. ANOVA ANALYSIS OF THE QUESTION – ANSWER RELATIONSHIP

It was carried out to determine if the percentages obtained from the responses are all significant at the 95% confidence level (considered as a null hypothesis) or that the highest percentage value (36%) is more significant than the others (considered as an alternative hypothesis), considering the four values of each answer, where it is deduced that the sum of all the percentages is 100%. To determine which hypothesis is the predominant one, the following statistical analysis of question 1 was prepared.

Table -2: ANOVA analysis of the question-answer process

36%	22%	22%
36	22	22
(36)2	(22)2	(22)2
1296	484	484
1296 / 4 = 324	484 / 4 = 121	484 / 4 = 121
324 + 121 + 121 + 100 = 566		
2664 - 566 = 2098		Grado de libertad 1: 4-1 = 3

		3
2664-566 = 2098	= 2098 / 164 = 12.79	Grado de libertad 1: 15-3 = 12
20%	100%	(100)2=10000
20	100	
(20)2		10,000 / 4 = 2500
400	2664	
400 / 4 =100		
En tabla F al 95% se obtiene 3.259		

Being less than 3.26 to 12.79, the null hypothesis is rejected and the alternative hypothesis is accepted, indicating that the highest value of the percentage (36%) is the most significant in question 1 of its four answers, and therefore the following questions indicate that the greater number of percentages of each question with its four answers.

7. CONCLUSIONS

The internal marketing process is of great relevance in any type of activity that leads to generating a service to clients at a commercial level or in government institutions, especially those in the educational sector for students. This has caused that in all activities the level of customer service is constantly improving with internal marketing strategies, because, for more than 10 years, the application of ISO9000 has been established as a quality management system. In this investigation, it was verified that the internal marketing strategies in the Department of School Services of the HEI evaluated, improve their quality of service to students, considered as clients. The ANOVA analysis indicated that the highest percentage of responses to each question is the most significant, and this



statistical analysis is highly relevant. In general, the quality of customer service is good, but it must be improved.

REFERENCES

- [1] Al-Borie, H. M. (2012). Impact of internal marketing on job satisfaction and organizational commitment: A study of teaching hospitals in Saudi Arabia. *Business and Management Research*, 1(3), pp 82–94.
- [2] Araque, J., Sánchez, E., Uribe, R. (2017). Relación entre Marketing Interno y compromiso organizacional en Centros de Desarrollo Tecnológico colombianos. *Revista Estudios Gerenciales*, Universidad ICESI, pp 95–101.
- [3] Duque, O., Chaparro, P. (2012). Medición de la percepción de la calidad del servicio de educación por parte de los estudiantes de la UPTC Duitama. *Criterio Libre*; 10(16). pp159–192.
- [4] Fontalvo, H., Vergara, S. (2010). La gestión de la calidad en los servicios ISO 9001:2008. España. Universidad de Málaga; pp 7–18. Editorial EUMED.
- [5] Figueroa Corral L. (2020). Procesos de aprendizaje sobre el impacto del Marketing Interno en la prestación de servicios a estudiantes en Instituciones Educativas de Nivel Superior. Tesis de Maestría, Facultad de Turismo y Mercadotecnia-Universidad Autónoma de Baja California (FTM-UABC).
- [6] García, S. (2008). *Manual de marketing*. Editorial ESIC. ISBN: 978- 8473-5657-7-6, pp105.
- [7] González, N., Hernández, O. (2012) Los tres primeros modelos de gestión del Endomarketing. Comparación teórica. Universidad Rafael Belloso Chacín. Centros Administrativos y Gerenciales. Vol. 9. No. 2. ISSN: 1856-6189, pp 39–62.
- [8] Grande, I. (2014). *Marketing de los servicios*. 4. 3–331. Editorial, ESIC.
- [9] López, M., Solís, A., Aguirre, G. (2016). Estrategias de Marketing Interno para incrementar la motivación del cliente interno. *Revista Iberoamericana de Ciencias*;3(7), pp. 94–109.
- [10] Phabmixay, C. Rodríguez, E., Rodríguez, P. (2018). Nuevos horizontes del marketing y de la distribución comercial. Universidad de Oviedo, pp 335–354.
- [11] Prado, R., Pascual, N. (2018). *Marketing industrial y de servicios*, pp 5– 248, Madrid, España. ESIC Editorial.
- [12] Sotelo, A., Figueroa, G. (2017). El clima organizacional y su correlación con la calidad en el servicio en una institución de educación de nivel medio superior. *Revista iberoamericana para la investigación y el Desarrollo Educativo*, 8(15), pp 2–28.
- [13] Tortosa, E., Moliner, T., Llorens, M., Rodríguez, A., Callarisa, F. (2014). *Marketing Interno*. I. 5–184. Ediciones pirámide.
- [14] Vera, J., Trujillo, A. (2018). El efecto de la calidad del servicio en la satisfacción del derechohabiente en instituciones públicas de salud en México. 63(2), pp 1–22.